

**IN THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 3 has been amended and claim 5 has been added as follows:

**Listing of Claims:**

Claim 1 (original): A cracking tube having fins formed on an inner surface thereof and inclined with respect to an axis of the tube for stirring a fluid inside the tube, the cracking tube being characterized in that the fins are arranged discretely on one or a plurality of helical loci, the tube inner surface having regions wherein no fins are present over the entire axial length of the tube from one axial end of the tube to the other axial end thereof.

Claim 2 (original): The cracking tube according to claim 1 wherein the fins have an angle of inclination of 15 to 85 degrees.

Claim 3 (currently amended): The cracking tube according to claim 1 [[or 2]] wherein assuming that the sum of the circular arc length of fins is TW (TW = w×n wherein w is the circular arc length of the fin as projected on a plane orthogonal to an axis of the tube, and n is the number of fins on one turn of the helical locus), and that the circumferential length of the tube inner surface is C (C =  $\pi$ D wherein D is the inside diameter of the tube), the ratio TW/C is 0.3 to 0.8.

Claim 4 (original): The cracking tube according to claim 1 wherein the fins are weld beads formed by overlaying.

**Claim 5 (new):** The cracking tube according to claim 2 wherein assuming that the sum of the circular arc length of fins is  $TW$  ( $TW = w \times n$  wherein  $w$  is the circular arc length of the fin as projected on a plane orthogonal to an axis of the tube, and  $n$  is the number of fins on one turn of the helical locus), and that the circumferential length of the tube inner surface is  $C$  ( $C = \pi D$  wherein  $D$  is the inside diameter of the tube), the ratio  $TW/C$  is 0.3 to 0.8.